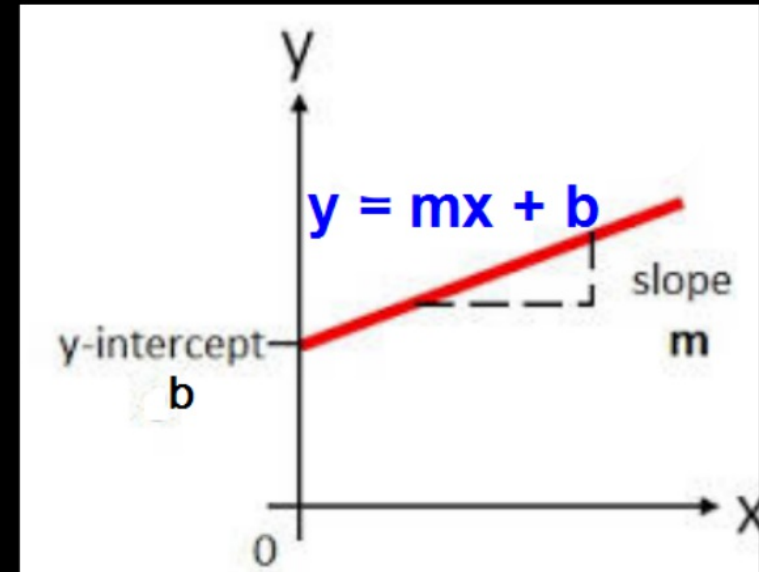


3.6.20

Graphing: Substituted Equations

Today's Objectives:

- Take a $y = mx + b$ equation and substitute it
- Solve region questions on a P/T graph
- Use software to enter data and calculate slope



Graphing: Substituted Equations

$$y = mx + b$$

Slope (Rise/Run)
↓
y-intercept (First Value)

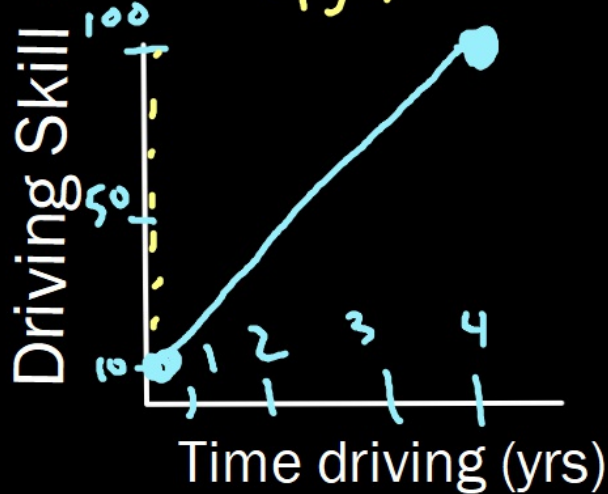
- Y and X are generic place holders
- Real experiments use real letters!

Substituted Equation

Get Slope & intercept

1. Start with $y = mx + b$ form
2. Replace Y and X with letters from the experiment
3. Keep the numbers (slope and intercept) the same

(9.) $m = \frac{90\%}{4 \text{ yrs}} = 22.5\%/\text{yr}$



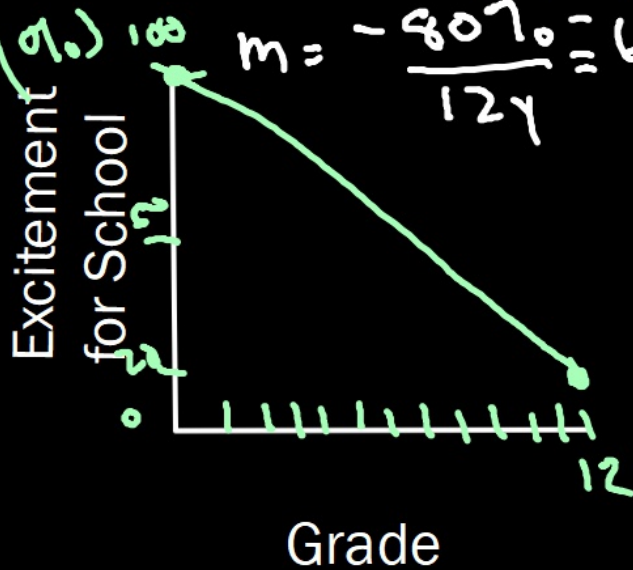
$y = mx + b$ form

$$y = 22.5x + 10$$

Substituted form

$$D = 22.5t + 10$$

(9.) $m = \frac{-80\%}{12 \text{ yrs}} = -6.67\%/\text{yr}$



$y = mx + b$ form

$$y = -6.67x + 100$$

Substituted form

$$E = -6.67G + 100$$